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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/506,288	08/31/2004	Thomas Justel	DE 020051	6742

24737 7590 04/05/2007

PHILIPS INTELLECTUAL PROPERTY & STANDARDS  
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BRIARCLIFF MANOR, NY 10510

EXAMINER
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ROY, SIKHA

ART UNIT	PAPER NUMBER
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2879

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/05/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/506,288

Applicant(s)

JUSTEL ET AL.

Examiner

Sikha Roy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-9 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

The Amendment, filed on January 19, 2007 has been entered and acknowledged by the Examiner.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,2,5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 4,983,881 to Eliasson et al., and further in view of U.S. Patent 3,980,887 to Mattis et al.

Regarding claim 1 Eliasson discloses (Fig. 1 column 3 lines 7-17, column 4 lines 1-30) a device for generating ultraviolet radiation equipped with at least partially UV-transparent discharge vessel of quartz or sapphire whose discharge space 4 is filled with a gas filling, with means for triggering and maintaining excimer discharge and with a luminous coating 5.

Eliasson is silent about the coating containing phosphor comprising a host lattice and neodymium activator.

Mattis in pertinent art of phosphors discloses (column 2 lines 58-67) a phosphor comprising a rare earth host metal and an activator selected from praseodymium, erbium, ytterbium, neodymium, thulium, dysprosium. Mattis further notes (column 2

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lines 47-49) that these phosphors are free-flowing and show unusually high brightness when excited by ultraviolet radiation.

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to use phosphor having neodymium as activator as suggested by Mattis for the luminescent material of Eliasson for providing a discharge vessel with unusually high brightness.

Regarding claim 2 Mattis discloses the phosphor containing praseodymium as co-activator.

Regarding claim 5 Eliasson discloses (column 3 lines 24-48) the gas filling contains a gas selected from xenon, argon neon and helium.

Regarding claim 6 Eliasson discloses the filling gas contains xenon.

Regarding claim 7 Eliasson discloses (column 4 lines 27-30) the discharge vessel has electrodes composed of UV-reflecting material such as aluminum.

Regarding claim 8 Eliasson discloses the vessel contains UV-reflecting coating 8 that reflects UV light.

Regarding claim 9 the recitation of using for photolytic processes has not been given patentable weight because is considered an intended used recitation. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ 2d 1647 (1987).

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 4,983,881 to Eliasson et al., U.S. Patent 3,980,887 to Mattis et al. and further in view of U.S. Patent 4,879,493 to Mastuno et al.

Regarding claim 4 Eliasson and Mattis are silent about the phosphor having coating that contains oxide selected from the group MgO, SiO<sub>2</sub>, and Al<sub>2</sub>O<sub>3</sub>.

Mastuno in pertinent field discloses (column 6 lines 47-65) a coating selected from a group of SiO<sub>2</sub>, MgO, Al<sub>2</sub>O<sub>3</sub> on the wall which prevents direct contact of the high energy radiating particle with glass wall of the discharge vessel and thus prevents blackening of the wall.

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the coating of SiO<sub>2</sub> as taught by Mastuno for the glass wall of the discharge vessel of Eliasson and Mattis for preventing blackening of the wall.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 4,983,881 to Eliasson et al., and further in view of U.S. Patent 6,822,385 to Oskam et al.

Regarding claim 1 Eliasson discloses (Fig. 1 column 3 lines 7-17, column 4 lines 1-30) a device for generating ultraviolet radiation equipped with at least partially UV-transparent discharge vessel of quartz or sapphire whose discharge space 4 is filled

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with a gas filling, with means for triggering and maintaining excimer discharge and with a luminous coating 5.

Eliasson is silent about the coating containing phosphor comprising a host lattice and neodymium activator.

Oskam in analogous art discloses (column 2 lines 22-39) a discharge vessel emitting VUV radiation including a luminophore coating containing a phosphor with host lattice and an activator containing neodymium (III). Oskam further notes that this phosphor provides radiation with improved efficiency.

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to use phosphor having neodymium as activator as suggested by Oskam for the luminescent material of Eliasson for providing a discharge vessel with improved efficiency.

### ***Allowable Subject Matter***

Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record neither discloses nor suggests a device for generating ultraviolet radiation having particular phosphor selected from the group as claimed.

***Response to Arguments***

Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sikha Roy whose telephone number is (571) 272-2463. The examiner can normally be reached on Monday-Friday 8:00 a.m. – 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*Sikha Roy*

Sikha Roy  
Patent Examiner  
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